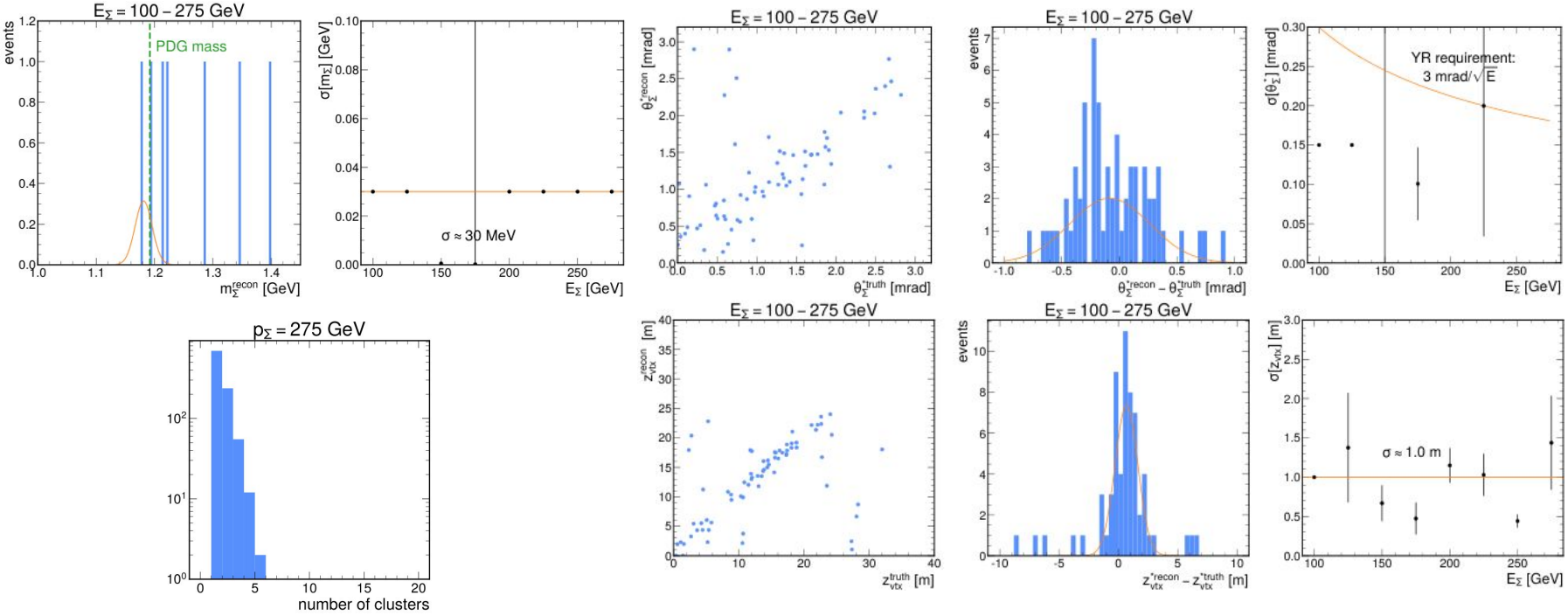
Validation WG: Updates

August 21st, 2024

Sigma zdc #20

Open **sebouh137** wants to merge 14 commits into `master` from `sigma_zdc`

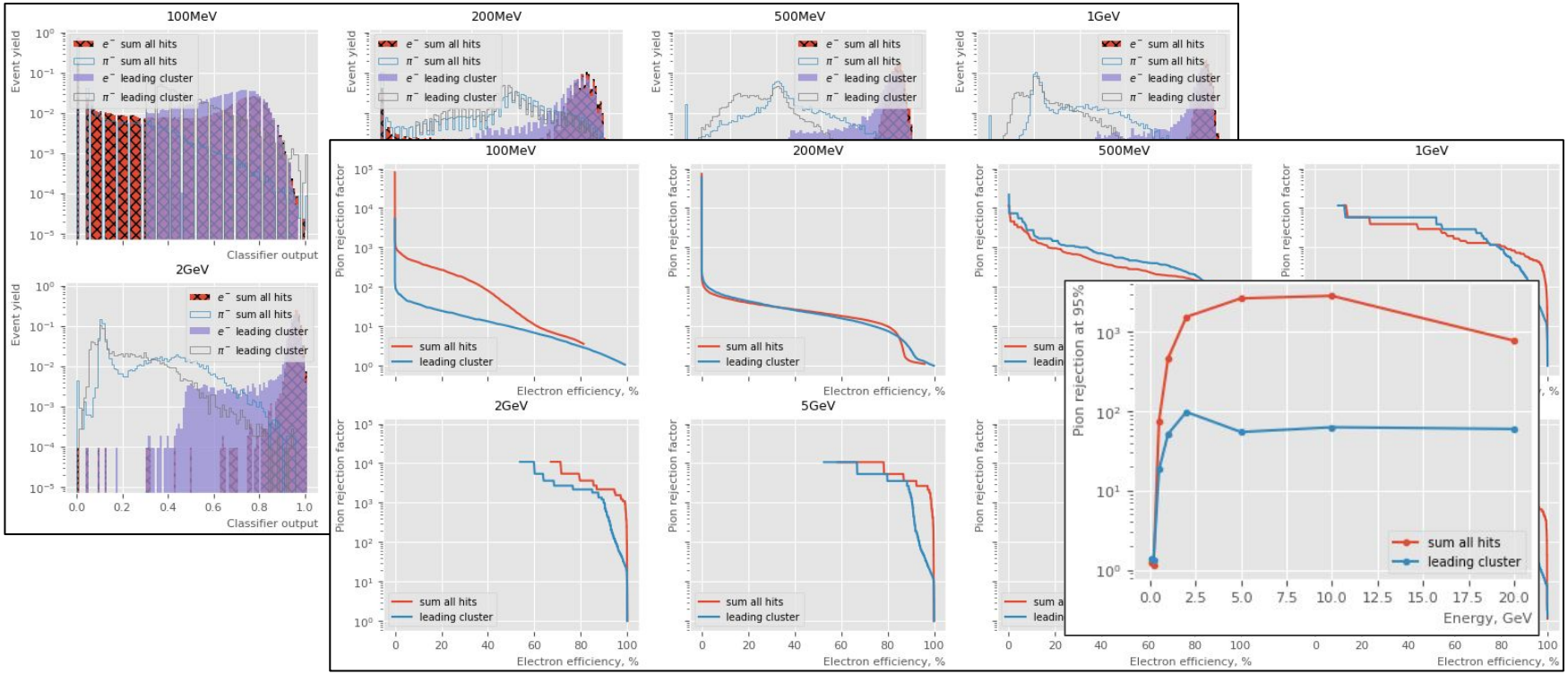


The above plots were derived by roughly patching around a current indexing bug

Doesn’t fit in 1 h, needs EICrecon performance fix for Topo cluttering by Wouter

Add backwards_ecal benchmark #44

Open **veprbl** wants to merge 13 commits into `master` from `pr/backwards_ecal`



Doesn’t fit in 2 h: reducing event count from 1000 per energy to 500

Semi-coherent zdc benchmark #18

Open JiaJunHuang120... wants to merge 5 commits into `master` from `zdc_lyso_physics`

Needs a reproducible recipe to generate input.hepmc

Current script does manual patching on the text HepMC files.

first commit of LFHCAL benchmarks #48

Open **steinber** wants to merge 2 commits into `master` from `pr/lfhcal_benchmarks`

This just in.

README files in our repos are geared too much to debugging common_bench internal issues (e.g. suggest running build_detector.sh locally) - not as helpful for people trying to implement their first benchmark.

Large influx of new benchmarks. The benchmarks used as reference are not equipped to analyze campaigns on the Snakemake side. Need to catch up…

image_browser

Schema derived from the SQL queries in the code

First attempt manual

For today, time was pressing, so fed into ChatGPT and got this

Next step would be to figure out some example contents

```
CREATE TABLE PlotGroups (
    ID INT AUTO_INCREMENT PRIMARY KEY,
    Name VARCHAR(255) NOT NULL,
    Type VARCHAR(255) NOT NULL
);

CREATE TABLE SuperGroups (
    ID INT AUTO_INCREMENT PRIMARY KEY,
    PlotGroup_ID INT NOT NULL,
    SuperPlotGroup_ID INT NOT NULL,
    FOREIGN KEY (PlotGroup_ID) REFERENCES PlotGroups(ID),
    FOREIGN KEY (SuperPlotGroup_ID) REFERENCES PlotGroups(ID)
);

CREATE TABLE Plot_Types (
    ID INT AUTO_INCREMENT PRIMARY KEY,
    Name VARCHAR(255) NOT NULL,
    Description TEXT,
    FileType VARCHAR(50),
    IsChunked BOOLEAN
);

CREATE TABLE PlotType_Groupings (
    ID INT AUTO_INCREMENT PRIMARY KEY,
    PlotType_ID INT NOT NULL,
    PlotGroup_ID INT NOT NULL,
    FOREIGN KEY (PlotType_ID) REFERENCES Plot_Types(ID),
    FOREIGN KEY (PlotGroup_ID) REFERENCES PlotGroups(ID)
);

CREATE TABLE Plots (
    ID INT AUTO_INCREMENT PRIMARY KEY,
    Plot_Types_ID INT NOT NULL,
    RunPeriod VARCHAR(255) NOT NULL,
    RunNumber INT NOT NULL,
    DateTime DATETIME NOT NULL,
    ForcedTraining BOOLEAN,
    FOREIGN KEY (Plot_Types_ID) REFERENCES Plot_Types(ID)
);
```